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ABSTRACT

Observational and interview data from 12 teachers in 6 schools is used to examine academic work in high school history classes, with the goal of investigating how opportunity to learn differs for students across schools, teachers, and ability groups. Academic work is analyzed to determine the degree of challenge and accountability provided and the degree of student engagement. Analysis revealed that only 4 teachers and 7 of the 24 classes consistently offered a high degree of opportunity to learn. Various teacher background and school context variables are examined to explain the discrepant opportunity provided by the teachers. (Author/JD)

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Academic Work in High School History Classes:

Opportunity to Learn in Six Schools

ED339678

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Multiple research and reform reports have lamented the mediocre state of student learning in American high schools (Boyer,1983; National Commission on Social Studies,1989 Sedlak,1986; Sizer,1984). Observational studies have analyzed hundreds of high school classrooms in which teacher led lecture/recitation and mundane rote tasks are the norm (McNeil,1986; Shaver,et al.,1979; Sirotnik,1983; Thornton,1988). Such teacher-dominated classrooms limit student opportunity to learn critical thinking skills since students are rarely asked to construct substantive knowledge (Downey & Levstik,1988; Newmann,1989). It is likely that such teaching hinders the learning of college-bound students, as well as students who are destined for the world of work immediately following high school. In fact, the apathy and poor skills of students who drop out of high school or barely eke out a diploma may be especially affected by such limited learning opportunities (Bishop,1989).

The goal of this paper is to assess the opportunity to learn social studies in a varied sample of 24 high school United States History classes in 6 high schools. Given the concerns of many educators that students are rarely expected to construct substantive knowledge, the academic tasks completed by students must surely be examined in order to assess opportunity. Nonetheless, merely analyzing the instruction and tasks offered to students does not yield an accurate assessment of what students are likely to learn in a class. Once a student is presented with instruction and tasks, it is important to ask whether the student becomes actively engaged. Successful student engagement depends heavily on a teacher's classroom organization and management skills and his* ability to keep students on-task. Certainly, instructional techniques and classroom organization/management are interrelated. Extensive research carried out at the elementary and junior high school level has established a clear link between teachers' classroom organization and management skills and teaching methods used (e.g., Emmer & Evertson,1981; Brophy,1983; Brophy,1988; Doyle,1986), however, it is unfortunate that there has been a dearth of such studies at the high school level (Doyle,1986). Only recently have Doyle and others begun to build a research base on academic work at the high school level that seeks to understand the complex relationships between instruction, management, and academic tasks (e.g., Doyle & Sanford,1985; Gallagher & Tobin,1987).

This study seeks to add to our knowledge base concerning academic work in high school social studies, with the goal of better understanding how to increase

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* Male pronouns will be used in this paper since the research to be reported concerns a group of male secondary teachers, however, general reference to female teachers is also assumed.

student opportunity to learn. First, a theoretical framework for analyzing opportunity to learn will be described and relevant research reviewed. In addition to examining academic work issues at the high school level, various factors influencing the teaching process will be considered. Second, the twelve teachers involved in the study will be compared in regard to their success in engaging students in instruction. Third, the degree of challenge and accountability inherent in the academic work assigned to students will be examined. Finally, various teacher background and school factors will be analyzed in order to explain the differential opportunity offered to students in the 24 classes.

Theoretical Framework and Literature Review

The Framework of Opportunity to Learn

The concept of opportunity to learn provides one way to understand the influence of instruction on student learning. Opportunity to learn refers to the content, tasks, and teacher-student interactions involved in any learning situation, and serves as one way of judging the quality of instruction (Harnischfeger & Wiley,1985). This perspective incorporates the work of Carroll (1963;1989), but goes beyond Carroll's initial conceptualization of time use to examine what type of instruction occurs within that time frame, as well as to assess how meaningfully engaged students are in the instruction (Harnischfeger & Wiley,1985). Within this model of learning, active student involvement is critical; a student must be devoting effort and time to the task in order to learn (Carroll,1963; Harnischfeger & Wiley,1985). Whether this key student variable is termed perseverance (Carroll,1963), active learning time (Harnischfeger & Wiley,1985), or substantive engagement (Nystrand & Gamoran,1989), focussing on the quantity and quality of student engagement provides a powerful tool for examining the opportunity to learn present in a classroom.

Thus, the opportunity to learn that is afforded by teacher practice must be examined in two ways: first, how successful the teacher is in engaging students in instruction (can be analyzed as time spent in instruction and student on-task behavior); and second, the potential for student learning that is afforded by instruction (can be examined through teaching methods, and the degree of challenge evidenced by academic work, as well as teacher success in holding students accountable for completing tasks and reaching goals). For the most part, the outer boundary on the amount of time spent in instruction is determined by the school schedule (i.e., a 45 minute period), and therefore is beyond the control of the teacher. Nonetheless, within this frame of allocated time, the teacher determines how time will be used, and

influences the degree to which students become engaged in instruction. According to this definition of opportunity to learn, both homework (can extend the amount of time available for learning) and in-class tasks must be examined, and special attention must be paid to whether students actually become engaged in the instruction which is offered.

Once an assessment is made concerning the degree of student engagement in instruction, it is then possible to consider the opportunity to learn presented by the instruction/academic tasks. If tasks/instruction are clear and well-designed, the time needed to learn can be decreased, and increased student achievement can result (Harnischfeger & Wiley,1985). Nonetheless, comparing the tasks/instruction presented to students in various classrooms is difficult since goals and tasks differ in regard to the degree of challenge/opportunity offered. For example, tasks presenting a high degree of opportunity are likely to result in substantive rather than simply procedural student engagement (Nystrand & Gamoran,1989), and involve student construction and production of knowledge in their own words (Newmann,1989; Prawat,1989a;b). Such high opportunity tasks are not routine, but are typically novel in the sense that they provide a unique situation in which students have to apply, analyze, or synthesize knowledge (Doyle,1983)

Engagement and Academic Work

At a gross level, opportunity to learn can be examined in terms of teacher management skills and the portion of time students are engaged in academic tasks. Many of the early elementary level classroom management studies followed this model (see review by Emmer & Evertson,1981), and pointed to key management skills that influence instruction and learning. Examination of these issues is somewhat more difficult at the high school level. Not only do the academic tasks themselves become more complex and content-driven, but the students are more savvy. Thus, while elementary students may react to mediocre and inappropriate instruction by exhibiting a good deal of off-task behavior (e.g., Evertson,1982), high school students are more likely to cooperate in exchange for a good grade (Brophy,1983; Doyle,1983; Doyle,1986).

The growing research literature on academic work in secondary classrooms is based on the premise that older students press to reduce ambiguity and risk in classroom tasks, and thus, prefer familiar (routine and recall) tasks in which they may only be procedurally engaged (Doyle,1983). A variety of empirical studies have documented the predominance of familiar tasks and mundane lecture/recitation lessons in which novel tasks occur rarely, or are negotiated by students to result in a

lower level of accountability (Doyle & Carter,1984; Doyle & Sanford,1985; McNeil,1986). It seems that high school teachers often utilize familiar tasks and lecture/recitation in order to maintain classroom control and aid in the transmission of knowledge (Adams & Biddle,1970; Doyle,1979; McNeil,1986). While the exceptional teacher may establish a personal or defacto (Common,1985) control of the classroom that is based on shared inquiry with students (Marshall,1988; Newmann,1989), many teachers rely on institutional or dejure control that is achieved by treating the teacher and the text as the objective truth (Common,1985). The teacher who relies on familiar tasks and lecture/recitation may often lower goals and standards (Doyle & Sanford,1985; Thornton,1988; Tobin & Gallagher,1987) in order to protect teacher authority and knowledge (Buchmann,1986), while clearly limiting student opportunity to learn. Thus, teachers can truncate student opportunity to learn by failing to engage students in instruction and/or by reducing the challenge of academic work.

Factors Influencing Teaching and Opportunity to Learn

In order to understand the factors influencing teacher practice and concomitant opportunity to learn, one must consider key teacher (e.g.,content and pedagogic knowledge/skills) and community/school (e.g., school resources and departmental leadership) variables. Recent research on teacher content and pedagogic knowledge/skills has begun to explore and demonstrate how teacher background characteristics affect student learning. The content and pedagogic knowledge of more expert teachers has been shown to be better developed, organized, and integrated (Berliner,1987; Carter,et al.,1988; Cornbleth,1985a; Livingston & Borko,1989). Multiple studies in history (Bodenhausen,1988; Wilson & Wineburg,1988) and other disciplines (Carlsen,1989; Hashweh,1987; Leinhardt & Smith,1985) have demonstrated how deficient teacher content knowledge constrains teaching and student opportunity to learn. Specifically, teachers with limited knowledge tend to overgeneralize and often fail to realize they lack knowledge that is central to successfully implementing a lesson or unit (Wilson & Wineburg,1988). Limitations in content knowledge may well explain why so many social studies teachers stay close to the text, allow it to provide the conceptual structure for the course (Stake,et al.,1978), and use the text to maintain control and content authority (Common,1982; McNeil,1986). Especially within the broad field of social studies, it is likely that teachers asked to teach courses for which they have little university level preparation will fall back on their own limited, and often inadequate, knowledge gained from K-12 schooling (Ball & McDiarmid,1989).

A number of recent studies have also demonstrated the pivotal roles of pedagogic (Brophy,1982; Carter & Doyle,1987) and social studies pedagogic knowledge (Carlsen & Wilson,1988; Gundmundsdottir,in press; Wineburg & Wilson,1988) in student learning. Pedagogic knowledge and skills include the teacher's repertoire of instructional methods and the concomitant classroom management skills necessary to implement the methods and maintain student engagement. For example, it seems that many teachers rely on the frontal, whole-group lecture/recitation approach because it facilitates the maintenance on-task behavior (Goodlad,1984), or at least allows the teacher to maintain the flow of instruction while students are quietly off-task. Thus, some teaching methods appear to ease (lecture/recitation) or increase (complex inquiry activities) demands on both the teacher's content and pedagogic knowledge (McKee,1988; Shaver,1987). Unfortunately, some of the methods that ease the classroom management burden constrain student learning of critical thinking skills (Cornbleth,1985b).

While limitations in content and pedagogic knowledge may cause certain teachers to truncate opportunity for all of their students, evidence abounds that some teachers disproportionally limit the opportunity of students in lower ability groups. In terms of engagement, teachers frequently encounter more classroom management problems with low ability groups. Studies carried out primarily in junior high classrooms document higher rates of off-task behavior and longer transition times in low ability classes (Evertson,1982; Lee & Gallagher,1986; Metz,1978). Although less well documented, high school students in lower ability groups may also experience reduced instructional time. For example, a study in high school science classrooms found that after disruptions it was easy for teachers to get honors students back on-task, while regaining attention in basic level classes was much more difficult (Gallagher & Tobin,1987). While the learning difficulties of these students may well increase management problems, teachers have been observed to alter their teaching methods (e.g., by offering fewer opportunities to participate, less variety in activities, fewer opportunities to acquire higher order thinking skills, and less encouragement) in ways that produce more off-task behavior (Evertson,1982; Metz,1978; Newmann,1989; Tobin & Gallagher,1987). Especially in low ability classes, teachers have been observed to reduce opportunity to learn by requiring low-demand tasks, and then allowing students to begin such homework tasks in class, clearly reducing total learning/ instructional time (see review by Murphy & Hallinger,1989).

Of course, a variety of community and school characteristics also influence teaching and student learning. For example, research across all grade levels in social

studies has documented a preference in many less affluent/professional communities for a conservative curriculum which stresses coverage of factual content through text-based lecture/recitation methods (Jarolimek,1981; Fancett & Hawke,1982; Shaver,1981). Although this question of social studies goal choice is quite complex, such content coverage pressures may well be a central concern driving teacher decisions. A recent study of 10 high school social studies teachers found that those teachers who were more successful in promoting student thinking cited critical thinking as their most important goal, while the other teachers emphasized exposing students to subject matter (Onosko,1989). The teachers who promoted critical thinking on the part of students were observed to carefully limit content coverage, and worked within departments characterized by strong departmental leadership, feelings of collegiality and ownership among the staff, and formal programs to develop critical thinking (McCarthy & Scrag,1988). In contrast, many teachers face a variety of contextual constraints such as ineffectual departmental leadership, limited professional development opportunities, lack of texts and materials, and poor school administrative and guidance services (Little,1989).

Ultimately, many of these influences act together to either promote or curtail student opportunity to learn. Teachers who lack content and pedagogic knowledge, and teach within environments unsupportive of broader critical thinking goals, may be especially prone to assign academic work and/or fail to engage students in ways that truncate student opportunity to learn. Of course, given that these influential factors are interrelated, extremely knowledgeable teachers and positive teaching environments are not equally distributed across schools and classes; thus, opportunity to learn may be more constrained in certain schools and ability groups.

Study Design

In order to provide a comprehensive picture of opportunity offered to all students, high school United States History classes were chosen for study since all students are required to take this course. To provide a range of school environments (see Table 1 for selected school characteristics) for the study, two teachers were chosen at each of six schools which vary according to student SES and racial characteristics, suburban-small town location, departmental organization and staff development, as well as school administrative and financial situation.

Insert Table 1 about here

An attempt was made to insure valid comparisons across teachers (see Table 2 for selected teacher characteristics) by requiring that all be experienced (at least three years) and that they possess the equivalent of a master's degree; nonetheless, the teachers still vary a great deal concerning their content and pedagogic knowledge, as well as years of experience (4-26 years) and teaching load.

Insert Table 2 about here

Due to the limitations placed on sampling by the characteristics mentioned above, all of the teachers involved in the study are male.

A vast array of study data is available for examining the degree of student engagement and quality of instruction, as well as the various influences on teacher practice. Teacher practice was observed during nine to ten days of instruction in two of each teacher's classrooms, resulting in a data base of 228 lessons. All six schools studied utilize ability grouping, so whenever possible the teachers were observed in two different ability groups. This design resulted in 5 honors, 6 basic, and 13 regular United States History classes for examination. Students typically enrolled in this course junior year; however, there were a few sophomores in classes at Grant High School, and a few repeating seniors in many of the regular and basic classes. Observations were typically conducted during two non-adjacent weeks (January - May, 1989) in an attempt to capture breadth of teaching methods, while still understanding the unit context of the lessons. Intensive field notes were later coded via one minute time segments to discern how time was used instructionally over various formats such as lecture, lecture/recitation, lecture/response, lecture/discussion, seatwork, and audio-visual use. (See Table 3 for the definition of variables.)

Insert Table 3 about here

Support of instruction through task information, task elaboration, and feedback was also coded. Finally, non-instructional time was divided into key categories such as organizational chores, behavior management, and free time. Focal student behaviors (such as oral involvement and off-task behavior) denoting degree of engagement were continually noted during observations. In addition, information concerning the

content and variety of academic tasks was gathered from observations and interviews. Data on the teaching environment was collected through department chair and teacher interviews; teacher background information was gathered during several hours of interviews with each teacher.

Engagement in Instruction

In order for students to learn, they must be engaged in instruction. The study data provide two primary ways to assess student engagement: instructional time and degree of on-task behavior (measured actually as amount of off-task behavior observed). Differences in engagement will be discerned and explained according to general teacher skills, ability group, and differential teacher treatment of groups. The goal of this section is to analyze the practice of the 12 teachers over their 24 classes in order to classify the teachers/classes according to degree of success in managing both instructional time and student engagement.

Opportunity Afforded by Instructional Time

The outer boundary of student opportunity to learn is to a great extent limited to the time allocated by the school or district to the study of United States History. In all six schools examined, US History was designated as a one year survey course, and allocated one class period per day. Of course, the length of class periods differs by school, as can be seen in Table 4, "Engagement in Instruction."

Insert Table 4 about here

By scanning the column, Allocated Time, one notes that period length ranges from 40 minutes at Adams High School to 60 minutes in the lunchtime classes at Carter High. Such a 20, or even 10 minute difference in period length can drastically increase what can possibly be accomplished within the course. For example, if a 45 minute modal period length, and a 180 day year are used to extrapolate the difference in allocated time between a 40 and 60 minute class period, one discovers that the difference is 80 class periods, or roughly four additional months of instruction! Even if the more typical contrast between a 40 and 50 minute period is considered in this manner, the difference of 40 class periods or two months of instruction is substantial. In addition, one must take into account that allocated time is frequently interrupted, as in the case of three teachers/classes in which daily announcements occur. If the period is not

lengthened to accommodate such announcements, as in the case of Mr. Hyde at Hoover High School, non-instructional time will be inflated in a way that is beyond the control of the teacher. Beyond the bounds of allocated class time, the teacher can certainly increase learning time through the assignment of homework. Examination of the last column of Table 4, Homework Time, reveals that teachers in the sample do vary in their propensity to extend learning opportunities through homework.

In order to analyze time use over broad categories, total class time was divided into instructional time (e.g., oral instruction, seatwork, audio-visual), instructional support (information about instructional tasks), and non-instruction (e.g., organizational chores, social time, free time), with these three categories calculated as the percent of total time. (Refer back to Table 3 for definitions of all subcategories.) The opportunity to learn in a given class can be inferred through analysis of scatterplots comparing the percent of total time spent in instruction and non-instructional pursuits. All 228 class sessions are plotted, with various groupings and teachers identified in a series of plots in order to discern whether instructional time differs by teacher, group, or possibly the school.

First, in order to initially observe the differences in non-instructional time allowed across teachers and classes, it is helpful to examine the Non-Instructional Time column shown in Table 4. The amount of time spent in non-instructional pursuits, as averaged over the nine to ten observations*, ranges from 3.14 to 31.24% of total time. In an effort to identify those teachers who have particular difficulty protecting time for instruction, the lessons high in non-instructional time can be highlighted in a plot and identified by teacher. As can be seen on the next page in the plot, Figure 1, classes of four teachers (shown in plot symbols instead of dots) account for all of the lessons in which more than 35% of total time was spent in non-instructional pursuits. Two of these teachers, Gregory (x) and Armstrong (\)* manifested high rates of non-instructional time across both of their classes. Essentially, these teachers were poor managers of time and/or had low expectations concerning what should be accomplished within one class period.

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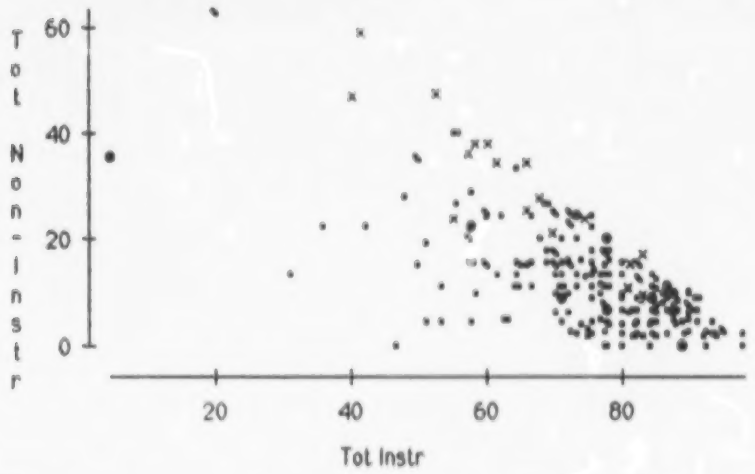
* While examination of the average is not as appropriate for describing activities within a classroom, scanning the averages is helpful for comparison purposes.

* The outlying point for Mr. Armstrong occurred because of a school-wide emergency drill during his regular class period. Despite this day, the regular class experienced an extremely high amount of non-instructional time.

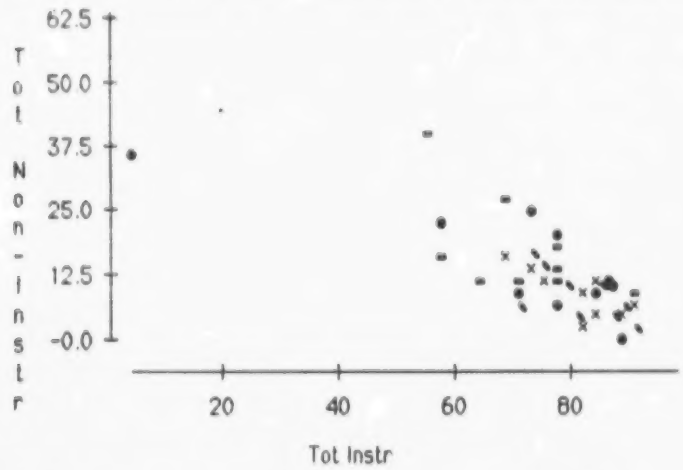
Fig. 1- Teachers/Classes Accounting for Lessons with High Rates of Non-Instructional Time



Mr. Gregory= x Mr. Armstrong= \ Mr. Hurley reg= ▫ Mr. Jones reg= •

In contrast, the other two teachers highlighted in the plot, Hurley (▫) and Jones (o), only allowed a high rate of non-instructional time in their regular classes. As can be seen more clearly in the plot showing only the classes of these two teachers, Figure 2, both Mr. Hurley and Mr. Jones offer more instructional time to their honors classes (shown by the x and \ symbols in the lower right corner of the plot).

Fig. 2- Teacher Differentiation of Instructional Time by Ability Group

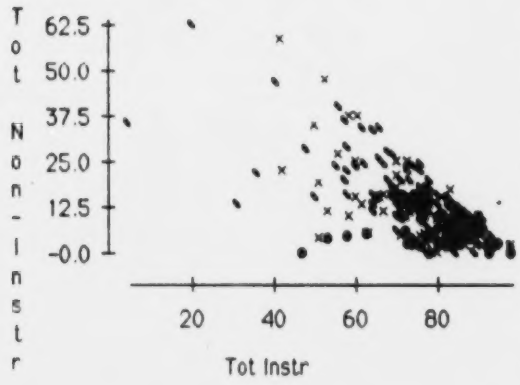


Hurley H= x Hurley R= ▫ Jones H= \ Jones R= •

On the other hand, all of the exceptional days with high rates of non-instructional time occurred in the regular classes (shown by the ▫ and • symbols). Certainly this is a most insidious form of lowered expectations in which these teachers clearly offer less opportunity to their lower ability groups. In the case of Mr. Jones, students were often given more free time, no task was assigned, or time was spent in behavior management. Alternately, Mr. Hurley spent time socializing with his regular students, extended the amount of time necessary for organizational chores, and reduced instructional time by having students grade academic tasks in class.

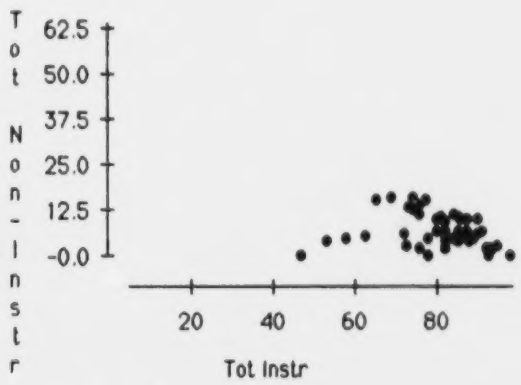
The next pair of plots uses symbols to differentiate the lessons by ability group in order to further explore the possibility that instructional time is differentially allocated by group.

Fig. 3- Use of Time by Ability Group



Honors= • Regular= \ Basic= x

Fig. 4- Use of Time in Honors Classes



Honors= •

Examination of the plot on the left, Figure 3, shows that all of the lessons in which more than 25% of total time was spent in non-instructional pursuits (y axis) occurred in basic or regular classes. Although the majority of points bunch in the lower right corner, lessons in which more than 75% of total time was spent in instruction, the plot on the right, Figure 4, shows clearly that honors classes uniformly experience a high percent of instructional time, low amounts of non-instruction, and a few lessons which are high in instructional support. Thus, regardless of school or teacher characteristics, honors classes receive more opportunity in terms of instructional time. In fact, all six of the classes experiencing high rates of non-instructional time are

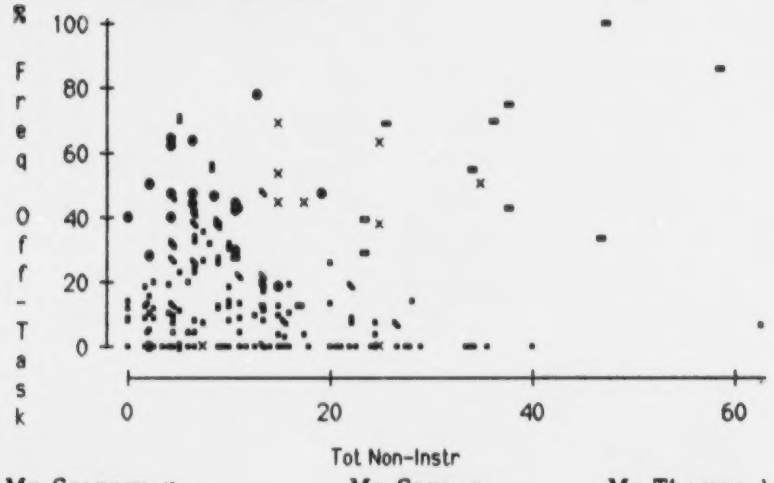
regular or basic classes, and are located in schools with both a high and low proportion of college-bound students (Adams, Jefferson, Hoover, and Grant).

Limitation of Opportunity by High Rates of Off-Task Behavior

While it is admittedly difficult in this type of research to estimate degree of student learning, it is possible to assess whether or not students are likely to learn based on their degree of engagement in the instruction offered. Certainly, if a student is off-task (socializing with a peer, engaged in non-academic pursuits, sleeping, etc.), the likelihood that he or she will learn is greatly reduced. Off-task behavior was noted continually during observations, and a count of instances of off-task behavior was made for each student. Frequently, the off-task behavior was not disruptive to the rest of the class, but clearly interfered with the learning of the individual student. For each class session, the percent of students frequently off-task (three or more times during the class session) was computed, and this figure was averaged over the nine to ten observations for purposes of initial comparison. As can be seen in the Percent of Students Off-Task column of Table 4, the range varies widely from virtually no students off-task (0.43% in one of Mr. Taney's regular classes) to close to half (Mr. Gage's honors class). In order to further explore class and ability group differences in student engagement, the percent of students frequently off-task is shown on the y axis along with total non-instructional time on the x axis in a series of plots.

If we examine the first version of the off-task behavior plot, Figure 5 on the next page, and select the teachers that account for all of the lessons in which more than 40% of students are frequently off-task, five teachers can be identified and shown by plot symbols. Three of these teachers, Gregory (=), Gage (•), and Thomas (\) experience high rates of off-task behavior in both of their classes. While each teacher works with a basic class, they all also experience difficulty maintaining attention within their regular or honors class. As in the case of non-instructional time in which two teachers (Gregory and Armstrong) simply seemed to be poor managers of time, these three teachers (Gregory, Gage, and Thomas) seem to lack instructional and classroom management skills which would allow them to successfully engage the vast majority of students in instruction.

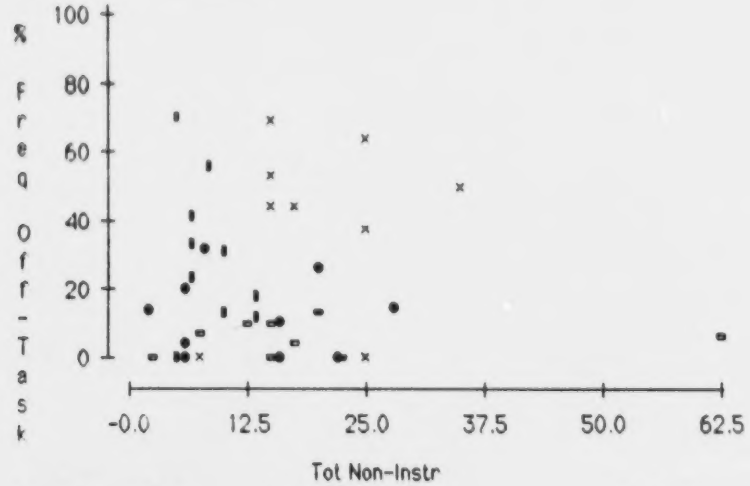
Fig. 5- Teachers/Classes Accounting for Lessons with a High Percent of Students Off-Task



Mr. Gregory= ▫ Mr. Gage= ● Mr. Thomas= \
Mr. Armstrong Basic= x Mr. Clark Basic= ▯

Nonetheless, returning to the issue of the influence of ability grouping on the capability of teachers to maintain student engagement, it does seem that engaging basic classes is a difficult task. The remaining two teachers who account for the high off-task data points, Armstrong (x) and Clark (▯) only experience serious problems with off-task behavior in their basic classes. This can be seen clearly in the next plot, Figure 6, in which the classes of these teachers are shown.

Fig. 6- Teachers Experiencing High Rates of Off-Task Behavior Only in Basic Classes

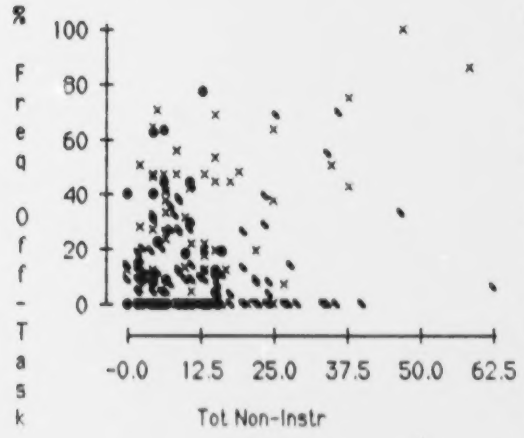


Armstrong R= ▫ Armstrong B= x Clark R= ● Clark B= ▯

Both Mr. Armstrong and Mr. Clark experience higher rates of off-task behavior in their basic (x and▯) than regular (▫ and •) classes. This relationship is especially clear for Mr. Armstrong, whose basic class was the most chaotic in the sample. While the nature of the students explains much of the difference in behavior, the fact that Mr. Armstrong utilized a greater variety of teaching methods (lecture, audio-visual, recitation, more varied academic tasks, etc.) in his regular than basic class is clearly an explanatory factor.

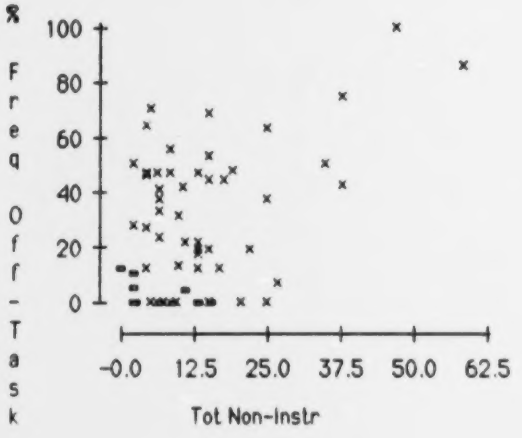
The increased difficulty of maintaining on-task behavior in basic ability groups can be seen clearly in the next pair of plots.

Fig. 7- Percent of Students Off-Task by Ability Group



Honors= • Regular= \ Basic= x

Fig. 8- Percent of Students Off-Task in Basic Classes

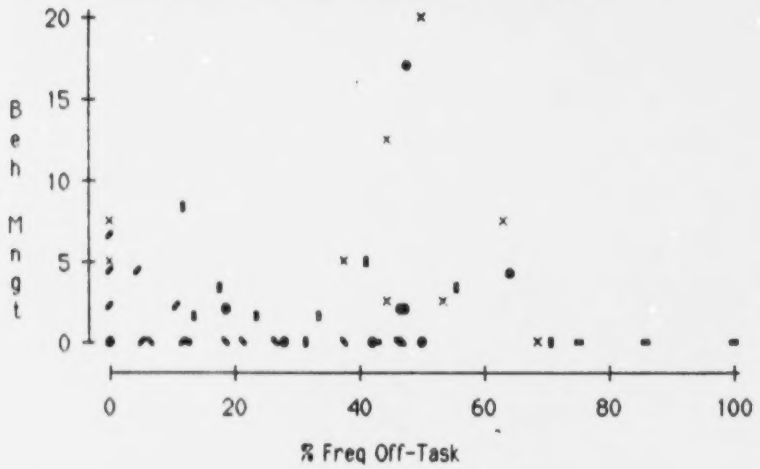


Basic= x Mr. Jewel Basic= ▫

In the first plot on the left, Figure 7, one can see that some regular and basic classes experience high rates of both off-task behavior and non-instructional time. Note that all of the honors lessons with over 25% of students off-task belong to Mr. Gage at Grant High School. The basic classes are shown separately in the plot to the right, Figure 8. What is fascinating to notice in this plot is that five of the six basic class teachers consistently have difficulty maintaining on-task behavior; only Mr. Jewel at Jefferson High School (note the rectangular plot symbols in the lower left corner of the plot) consistently achieves low rates of non-instructional time and off-task behavior.

Maintaining high rates of student engagement, especially in basic classes, is complicated, and involves both instructional and management skills. While the importance of instruction and academic work will be discussed in the next section of the paper, it may be helpful now to briefly explore the influence of teacher management skills on student off-task behavior. Teacher efforts to prevent or decrease off-task behavior through oral reprimands, behavioral lectures, or preventative motivational speeches was noted if the teacher comment lasted at least one minute. In order to assess the efforts of teachers to control off-task behavior, percent of total time spent in behavior management (y axis) is plotted against percent of students frequently off-task (x axis) for the six basic classes. As can be discerned from the plot below, Figure 9, the teachers differ in the rate and effectiveness of their behavior management efforts.

Fig. 9- The Relationship Between Time Spent in Behavior Management and Student Off-Task Behavior in Basic Classes



Mr. Gregory=▫ Mr. Thomas=\ Mr. Jewel=/
Mr. Armstrong=x Mr. Gage=● Mr. Clark=▯

Notice that Mr. Gregory and Mr. Thomas (▫and \) spend no time in behavior management, although students in their basic classes are frequently off-task. On the other hand, Mr. Armstrong, Mr. Gage, and Mr. Clark (x, ●, and▯) often spend time in behavior management, yet student off-task behavior still persists. Only Mr. Jewel (/) appears to successfully limit and prevent off-task behavior on a consistent basis. Note that on several days, Mr. Jewel spends small amounts of time in behavior management.

without any students being off-task. Clearly, he frequently discusses his expectations for behavior with the students in a preventative manner.

In addition to teacher skills in managing in-class instructional time and student off-task behavior, the frequency of homework should also be considered in order to fully assess the opportunity for students to be engaged in US History. Returning for a moment to Table 4 and the last column, Homework Time, the frequency of homework and time needed to complete these tasks were assessed and rated on a continuum from none to an extensive amount. Examination of the basic classes reveals that two of the teachers who already truncate opportunity by allowing high rates of off-task behavior (Thomas and Gregory) do not extend learning time by assigning homework. Another two teachers assign either minimal (Gage) or only optional (Clark) homework, while Mr. Armstrong at least makes up for high non-instructional time and high off-task behavior by assigning a moderate amount of homework. Ultimately, only Mr. Jewel, who already offers the most opportunity in terms of instructional time and on-task behavior, optimizes learning by requiring extensive homework. In this classroom, homework was assigned four to five days a week, the tasks were highly integrated with instruction, and students received extensive oral and written feedback on their performance.

As a way of summarizing the opportunity to learn offered as a result of teacher skill in managing instructional time and student engagement, the teachers were classified into two groups of more or less effective managers. (See Table 5, "Rating of Effectiveness in Managing Time and Student Engagement.")

Insert Table 5 about here

On the left side of the table are listed the 8 teachers and their 13 classes in which opportunity to learn was not jeopardized by high rates of non-instructional time or off-task behavior. Note that five teachers succeed in engaging students in both of their classes (Anderson, Jewel, Taney, Hyde, and Curtis). On the right are listed the 7 teachers and 11 classes in which opportunity is limited by one of these key factors. While three of the teachers (Jones, Hurley, and Clark) exhibited management difficulties only in their lower ability group class (regular or basic), four teachers appeared to be weak managers in both classes observed (Armstrong, Gage, Gregory, Thomas). Most of the less effective managers experienced difficulty keeping students on-task, a complex skill which depends not only on teacher knowledge/skills, but

student characteristics. Nonetheless, it should be noted that in the case of three regular classes (Armstrong, Jones, Hurley), student opportunity to learn US History was limited only by high rates of non-instructional time, a factor directly under control of the teacher.

Opportunity Offered by Instruction

While classes and students of particular teachers, and to an extent of certain ability groups, are engaged for a lower amount of time in instruction, the next step is to discern the opportunity offered to students via that instruction. Unless a student undertakes a great deal of independent study, or receives additional instruction on a topic from another source, what he or she learns concerning US History is greatly shaped by the tasks and instructional methods utilized by the teacher with a particular group of students. In addition, student learning is also influenced by the various techniques (e.g., expectation for students to participate orally, the relationship between seatwork and homework, use of class time for grading, and degree of clarity and timeliness in task assignments and feedback) that teachers utilize to express expectations and hold students accountable for learning objectives. Differential opportunity to learn via these aspects of instruction will be analyzed across schools, individual teachers, and ability groups. The goal of this section is to examine the degree of opportunity or academic press offered by teachers to their classes; teachers will ultimately be classified as to whether a high or low academic press can be discerned.

Degree of Challenge/Opportunity Offered by Instruction and Academic Work

The academic work required in a class, especially written tasks, tells much concerning the level of challenge and opportunity offered to students. As can be seen in Table 6, "Academic Work in US History Classes: Factors for Assessing Challenge", the majority of written work in these US History classes was of four types: defining vocabulary terms, completing objective worksheets, completing short answer questions, and more complex writing tasks and projects.

Insert Table 6 about here

Though nine to ten days in a classroom does not allow compilation of the entire variety of academic tasks assigned, the common pattern of academic work became quickly clear

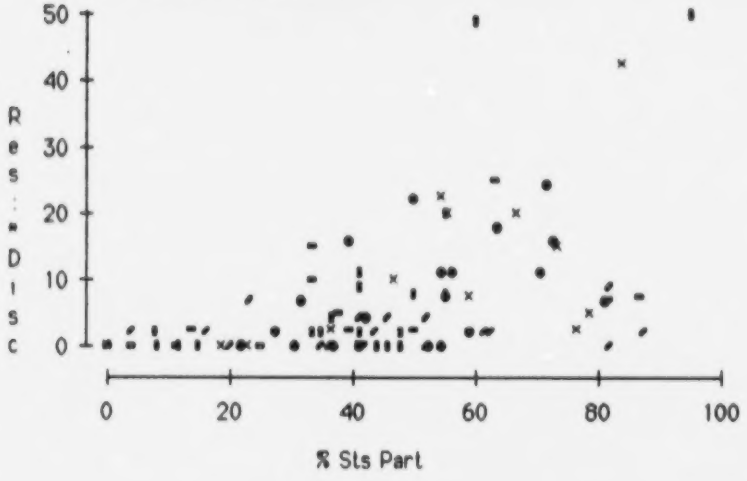
in most cases. For example, students in Mr. Curtis' regular classes routinely defined vocabulary, answered the objective chapter review items, and completed publisher worksheets for each chapter. Table 6 is organized with Adams, Jefferson, and Truman (the three schools serving primarily college-bound students) in the upper half. As can easily be noted, common tasks in these schools include short answer questions and more complex writing projects, while students in the other three schools are more likely to be defining vocabulary and completing worksheets, with little evidence of substantive writing tasks. In addition, it is more common for the teachers serving primarily college-bound students to generate their own questions and tasks, as opposed to relying on text or publisher worksheets, vocabulary lists, and questions. The exceptions to this trend are the two additional honors classes (Mr. Hurley at Hoover and Mr. Gage at Grant) who do require writing, and the basic class taught by Mr. Thomas at Truman; these basic students (unlike their peers at Adams and Jefferson) completed only worksheets with no additional writing tasks. While there is some differentiation of tasks by ability group, more importantly it is the school attended, and the characteristics of the student body and teachers, that determines whether students will be challenged by writing tasks and projects.

Besides academic tasks, some indicator of instructional methods should be examined in order to get a sense of the opportunity offered within a US History classroom. In the study, all oral instruction was coded on a continuum running from lecture and recitation, to the more interactive categories of response and discussion. (Refer back to Table 3 for definitions of these oral instructional formats.) This sample of social studies classes was not unusual in that the lecture and recitation categories were most heavily used. Thus, for the purpose of analysis, the more interactive categories of response, lecture/discussion, and pure discussion were combined and calculated as the percent of total time spent in response:discussion. As can be seen in the last column of Table 6, Average Percent Time in Response:Discussion, half of the teachers fail to engage students in discussion-like activities, while six teachers at least spent a modest but substantial average of 2 to nearly 10% of total time in this type of oral instruction. The teachers who frequently challenge students through response:discussion can be analyzed in two plots in which the percent of total time spent in response:discussion (y axis) is plotted along with the percent of students who participated orally in the lesson (x axis).

As can be seen in the plot on the next page, Figure 10, five of the teachers working in schools with a high percentage of college-bound students (Adams,

Jefferson, and Truman) account for the vast majority of lessons in which students were challenged to give longer and more substantive responses to teacher questions.

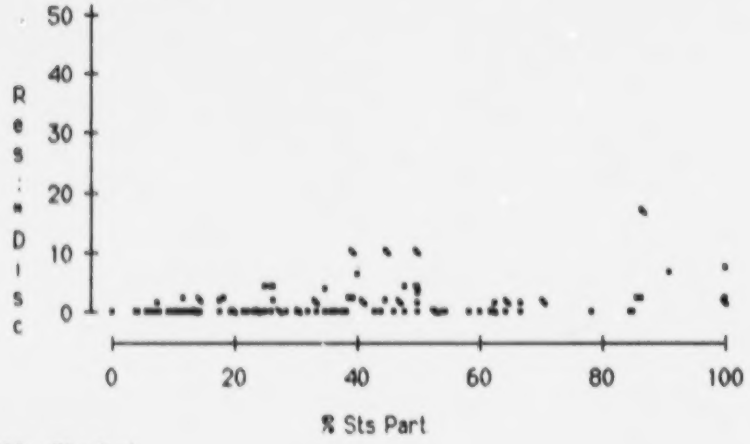
Fig. 10- Teachers Accounting for Lessons in Which Students Were Challenged by Spending a Substantive Amount of Time in Response:Discussion



Mr. Jewel=● Mr. Anderson=x Mr. Jones=[] Mr. Armstrong=▭ Mr. Taney=/

Considering that these five teachers already have been shown to challenge students with substantive academic work including writing, a pattern of differential challenge across schools becomes clear. As can be discerned from the plot on the next page, Figure 11, which shows the classes of the remaining seven teachers, only one teacher, Mr. Clark, spent a moderate amount of time in discussion-like activities over several days. Mr. Clark is the only teacher working within schools serving a low proportion of college-bound students (Hoover, Carter, and Grant) who uses much response:discussion; however, because he failed to structure these discussions, and rarely required any written work (optional worksheets typified academic work within his class), Mr. Clark's classes can only be characterized as offering low challenge. While students at Hoover, Carter, and Grant high schools rarely have the opportunity to engage in discussion-like activities, and typically are not challenged by novel academic tasks, the two honors classes are exceptions. For students within these high schools, only membership in an honors class insures that one will at least be challenged by writing tasks and novel projects.

Fig. 11- Percent of Time Spent in Response:Discussion by the Remaining Teachers

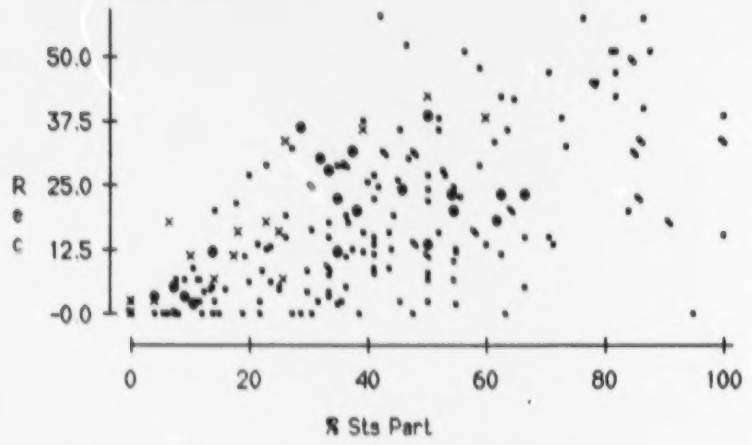


Mr. Clark= \

Opportunity Via Accountability for Academic Work and Learning

While the extent of challenge offered by instruction and academic tasks is central to defining degree of academic press, if students are not held accountable for completing tasks, they may fail to be fully engaged and learn. Alternately, teachers may hold students highly accountable, and thus keep students on-task, but the academic challenge offered by the instruction may still be low. For example, teachers who expect students to frequently participate orally in recitation and/or response:discussion (with the exception of two basic classes taught by Clark and Armstrong) succeed in limiting off-task behavior. Closer examination of three teachers who rely on recitation and are successful managers will help to understand this paradox between expecting high accountability and yet offering low challenge. As can be seen in the plot on the next page, Figure 12, in which total time in recitation (y axis) is shown along with percent of students participating orally, three teachers who maintain low rates of off-task behavior (Hyde, Curtis, and Hurley) often engage a large portion of students in recitation. The likelihood that high oral participation reduces off-task behavior can be seen most clearly in the case of Mr. Hurley, who frequently engaged over 80% of his students orally. Nonetheless, the degree of challenge inherent in these recitation activities was minimal; recitation often centered around factually oriented worksheets and objective text exercises that had been completed for homework or during in-class seatwork.

Fig. 12- Successful Managers Who Engage a Substantial Percent of Students in Recitation



Mr. Hyde= x Mr. Curtis= • Mr. Hurley= \

One instructional technique which is closely associated with expectations concerning academic work and homework is the use of in-class seatwork. Of course, seatwork can be used to accomplish a number of purposes (e.g., engage students in a simulation activity or cooperative group learning); however, in most instances within this sample, students were requested to complete worksheets, define vocabulary, or answer questions during seatwork. What is most striking about the use of seatwork is the tendency for a number of teachers to allow students to begin their homework in-class, or to have seatwork completely replace homework. As can be seen in the first data column of Table 7, "Academic Work in US History Classes: Factors for Assessing Accountability" six teachers in ten classrooms reduce in-class instructional time, as well as their expectations for homework, by allowing students to begin homework in class.

Insert Table 7 about here

Note once again that in the three schools serving a more college-bound student population, only two of the basic class teachers (Armstrong and Thomas) lower their expectations concerning academic work by allowing seatwork to reduce or replace homework. Alternately, in eight of the twelve classrooms serving regular or basic

students at Hoover, Carter, and Grant, teachers reduce challenge and opportunity to learn in this manner.

Additional evidence concerning the degree of opportunity provided by tasks, methods of holding students accountable, and the feedback students receive can be found in the methods teachers utilize to grade student work. For example, as can be seen on the left hand side of Table 7, teachers can grade academic work outside of class, or grade tasks in-class with or without student assistance. Clearly school differences exist in terms of student grading; none of the teachers in Adams, Jefferson, or Truman (top half of table) reduced instructional time (and their own grading time outside of class) by having students grade in-class, while there were a number of instances observed in the three schools serving fewer college-bound students. Most of these teachers also frequently graded student work while students completed another seatwork task, reducing the amount of time that the teacher could actively monitor student learning. As is logical, use of these in-class grading techniques is related to the type of task assigned. Commonly, tasks graded in this fashion were objective in nature (worksheets or vocabulary) that could be easily graded by the teacher or students with a cursory glance. Such low challenge tasks which are graded in a cursory or infrequent manner greatly reduce the potential for challenge and feedback students need to continue their learning.

Feedback to students on their performance, or teacher efforts to encourage improvement in future performance, is typically given either to the entire class orally, or is written on individual student tasks (see the right side of Table 7). While there may be a school-linked trend in that the teachers who rely more on in-class grading offer less written feedback, the total instances of feedback observed seem to vary over teachers. For example, when the data was reviewed for evidence of lack of clarity in terms of task due dates and timeliness in providing feedback, no trends can be seen in terms of school or ability group. Of the six teachers who exhibited lack of clarity and timeliness, five also had difficulty protecting instructional time and/or maintaining on-task behavior (Armstrong, Jones, Clark, Gage, and Gregory). The ability and willingness to organize tasks, clearly explain them, and provide timely and substantive feedback may well be related to classroom organization and management skills which influence the degree of student engagement.

Classification of Teachers According to Academic Press

Teachers were classified according to degree of challenge (high challenge primarily keyed on writing tasks, use of constructive response discussion, and whether

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instruction was coherently organized around themes or at least a chronology) and accountability (high accountability keyed primarily to clarity, timeliness, and frequency in regard to task due dates and feedback, as well as consideration of expectations for oral participation) presented by instruction and tasks. (See Table 8, The Level of Academic Press Observed in US History Classes: Classification of Teachers/Classes by Degree of Challenge and Accountability.")

Insert Table 8 about here

Since degree of challenge more closely approximates academic press, and degree of accountability may be somewhat more related to management skills, challenge is weighted more heavily in dividing the teachers and classes according to high or low levels of academic press. Thus, according to these criteria the classes are divided evenly, with high academic press classes above the diagonal, and those exerting only low academic press below. Two unique situations should be noted. First, Mr. Thomas' regular class fell on the border between high and low challenge since students were required to do some writing, although all such tasks were completed during class. Nonetheless, these students were held to high standards of accountability, raising the overall level of academic press. Second, while Mr. Gage offered both his honors and basic classes well-crafted and substantive lectures, only the honors class was required to write essays, reducing the academic press experienced by the basic class.

For the most part, students experiencing a high degree of academic press are located in the schools serving a high proportion of college-bound students (Adams, Jefferson, and Truman), with the few exceptions to this trend related to ability group For example, the one group of students from Hoover, Carter, or Grant that is highly challenged is an honors class taught by Mr. Gage at Grant High School. The other honors class in this group (Mr. Hurley) was required to occasionally write essays; however, academic press was reduced in this class by a fact-based orientation which took the form of omnipresent worksheets. Of the classes located within the schools characterized by a college-bound population, only Mr. Thomas fails to exert a high level of academic press in his basic class .

Opportunity to Learn: Academic Press and Management

A more holistic sense of opportunity to learn offered in these 24 classes can be achieved if both academic press and degree of success in managing student

engagement are examined. Table 9, "Characterization of Teachers/Classes by Effectiveness of Management, Academic Press, and Teaching Style", organizes the teachers into four categories, with the most desirable situation, high press and effective management, on the far left.

Insert Table 9 about here

In an effort to help explain why the teachers/classes fall into these categories, dominant teaching style* (primarily keyed to oral instruction) is also included in the table.

Beginning on the far left with the effective managers who exert a high academic press, one notes that all of the teachers are located in the schools serving a high proportion of college-bound students. In addition, three of the teachers (Jewel, Anderson, and Taney) balance other forms of oral interaction with a fair amount of response:discussion, while Mr. Jones (honors class) is classified as a lecturer, since that format is used more consistently than the response:discussion. Note that only one basic, but three honors classes enjoy this optimal situation in regard to potential opportunity to learn.

Turning now to the high press teachers/classes with less effective management (third column), it is striking that all of these teachers are lecturers, and with the exception of Mr. Gage, they all teach predominantly college-bound students. Recall that while the regular classes of Mr. Jones and Mr. Armstrong suffer only from high non-instructional time, high off-task behavior affects the other three classes in this category. Especially in the case of Mr. Gage and Mr. Thomas, the use of lecture, and occasional A-V presentations, allowed them to maintain the flow of instruction while ignoring a good deal of off-task behavior.

The teachers who effectively manage time and student engagement, but offer low challenge and academic press (second column), all can be typified by a recitation style, and work within the schools serving a relatively low proportion of college-bound students. For the most part, teachers in this category hold students highly accountable for academic work and oral involvement, but the reliance on recitation, in-class

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* Explanation of these teaching styles is contained in a separate paper, "Constraint of Teaching Methods and Opportunity to Learn in High School History Classes: The Pressures of Content Coverage and Classroom Management", presented during session 18.20 of the 1990 AERA Annual Meeting.

seatwork, and low challenge tasks results in truncated opportunity to learn. Observers of academic work in secondary classrooms have characterized such classes as "high production" (Doyle & Sanford, 1985); students are kept busy, but are rarely challenged and only procedurally engaged.

Finally, the students within the low press and poorly managed classrooms receive the least opportunity to learn. All of these classrooms, with the exception of Mr. Thomas' basic class, are located within Hoover, Carter, and Grant high schools, and the majority are basic classes. Note that only Mr. Gregory uniformly fails to challenge and manage both of his US History classes, while all of the other teachers are somewhat more successful with their higher ability group class.

Factors Influencing Opportunity to Learn

The major factors influencing opportunity to learn in these 24 US History classes can be summarized and organized according to teacher, ability group, and school level characteristics. Beginning with teacher background characteristics, it seems evident that the more and less effective managers differ in their skills, and probably their pedagogic knowledge, related to classroom organization and management, as well as instructional strategies. While it was not possible in the course of this study to obtain any measure or proxy for pedagogic knowledge, two teacher background characteristics associated with content knowledge can be examined in order to explain differences between the degree of challenge and academic press offered by teachers. Table 2, "Selected Teacher Characteristics", contains information concerning the history content knowledge and reading habits of the teachers. Only the seven teachers who completed a major or more in history with some graduate level coursework possess strong reading habits in which they actively extend their content knowledge by reading history books and/or scholarly journals. All of the teachers at Adams, Jefferson, and Truman possess strong content knowledge, while only one teacher at the other three schools, Mr. Gage at Grant, is so highly educated. The correlation between content knowledge and high academic press partially explains why Mr. Gage is the only teacher from the schools serving a low proportion of college-bound students who offers a relatively high level of challenge (at least at the honors level). Amount of content knowledge also seems to explain teaching style, since all of the teachers who heavily utilize lecture or response discussion possess graduate work in history and strong reading habits. In contrast, five of the teachers who offer low academic press possess more limited content knowledge and rely on recitation.

seatwork, and audio-visual presentations. The two high content knowledge teachers (Gage and Thomas) who fail to challenge students do so in their basic classes.

Clearly, although teacher knowledge and skills may explain some differences in opportunity to learn, ability group is frequently an additional factor. For example, in reviewing the opportunity offered to honors classes, four out of five are offered high press, and the same ratio of classes are highly engaged. Consideration of the exceptions reveals that while Mr. Gage, a highly knowledgeable teacher, offered quite challenging tasks and instruction, he frequently failed to engage a large percent of students. In contrast, Mr. Hurley kept his honors students on-task, but his limited content knowledge may well explain the low challenge level of tasks observed. Among the basic classes, it has been shown that five out of six experienced reduced opportunity due to high rates of off-task behavior. This additional management difficulty may well account for the other exception according to school and teacher background knowledge, Mr. Thomas' (Truman High School) lower level of academic press for his basic class.

Examination of school level factors will elucidate the connections between community characteristics, teacher background characteristics, level of academic press, goals espoused by teachers, and nature of departmental leadership. Certainly communities differ in terms of student characteristics and future plans, as well as school resources and priorities. Such school characteristics influence the ability of schools to attract and hire highly educated teachers, as evidenced by the qualifications of teachers observed in Adams, Jefferson, and Truman high schools. Since a disparity in academic press is so highly related to school and teacher background characteristics, it would also be interesting to examine whether teachers differed in the goals they held for their students. As can be seen in Table 10, "Goals Stated by Teachers Concerning Their US History Classes", the majority of teachers spoke of content and cultural literacy goals, common goals for social studies educators.

Insert Table 10 about here

What is fascinating is that only the teachers at the three schools serving primarily college-bound students (Adams, Jefferson, and Truman- shown in the top half of the table) included the development of general or social science specific critical thinking skills among their goals. Only one high academic press teacher (Gage-honors class) does not directly state a skill goal. A key difference between schools may explain the

variance in goals/academic press offered across schools, and to a lesser extent, ability groups. While the primarily high academic press schools (Adams, Jefferson, and Truman) possessed a social studies department chair who was an expert in the field and provided strong leadership, the leadership of the chairs in the other schools was somehow limited. For example, the chairs at Hoover and Grant were from other disciplines (foreign language and theater), while the content expert chair at Carter had to supervise staffs at three high schools. Thus, these limitations in leadership and the generally lower level of content knowledge among teachers at these schools at least partially explain the less challenging goals and corresponding academic work.

This study highlights the importance of both classroom management and instructional skills which facilitate student engagement in challenging tasks, and generates several questions or implications for teacher education. In regard to university efforts, in-depth study of history (at the graduate level or in substantive undergraduate "capstone" seminars) may be necessary to insure that teachers possess the skills and desire to continually add to their content knowledge. Insuring that teachers possess adequate content knowledge, and concomitant pedagogic content knowledge, may prevent teachers from overreliance on recitation and seatwork, techniques which frequently foster only a low level of academic press. Of course, as can be seen in the high press classrooms of the less effective managers in this study, superior content knowledge alone is insufficient to guarantee student engagement and learning. Thus, university preservice programs must assist teachers in acquiring the pedagogic skills and knowledge that will enable successful student engagement. While schools can promote opportunity to learn by hiring teachers with adequate content knowledge, and then encouraging continued learning, it also seems imperative that department chairs encourage thoughtful selection of goals and instructional techniques. Nonetheless, the fact that opportunity was in some way truncated by the ineffective management skills of more than half of the teachers across all six schools and ability groups in this sample, points to a serious problem that may be going unnoticed in many schools. In order to fully engage the vast majority of students in challenging academic work, school leaders, especially department chairs, may need to be much more involved in developing the interdependent management skills and teaching methods of their teachers.

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Tables

Table 1

Selected School Characteristics*

School	#Adams	#Jefferson	#Truman	Hoover	Carter	Grant
School Enrollment	1798	3021	1655	1435	1472	913
Cost Per Pupil	$8,021	$7,826	$7,964	$3,232	$6,760	$6,405
% Students Low-Income	0.4	22.1	4.4	11.2	25.3	37.2
% Students White	88.0	51.5	83.2	83.4	36.9	24.8
% Students Black	0.1	41.8	1.8	1.3	43.4	63.2
% Students Hispanic	1.1	3.6	8.8	13.2	18.8	8.9
% Students Asian	10.8	3.1	5.8	1.1	0.4	2.4
Mobility Rate	2.8	6.4	16.9	18.3	24.9	28.5
Attendance Rate	93.4	93.7	92.7	91.9	89.4	82.8
Graduation Rate	98.0	91.2	90.9	87.2	67.1	62.9
Average ACT Score	21.6	19.9	19.3	18.8	16.3	13.4
% Students Taking ACT	97.4	77.6	72.1	35.7	25.1	56.7

*Data from 1988-1989 School District Reports to the State.

All schools are located in suburban communities of a major Midwestern metropolitan area, with the exception of Hoover, which is located in a small town.

Schools serving predominantly college-bound students.

Table 2

Selected Teacher Characteristics

School/ Teacher	Years Exp	# Preps	# Sports Coached	History Equivalent				Reading Habits*		
				> Major w/Grad	Major w/Grad	Major BA	Minor BA	Strong	Ave.	Weak
Adams H.S.										
Mr. Anderson	16	4		x				x		
Mr. Armstrong	22	3		x				x		
Jefferson H.S.										
Mr. Jewel	12	3		x				x		
Mr. Jones	26	3			x			x		
Truman H.S.										
Mr. Taney	4	2	1	x				x		
Mr. Thomas	9	2	3		x			x		
Hoover H.S.										
Mr. Hurley	9	4	2				x		x	
Mr. Hyde	12	2	1			x			x	
Carter H.S.										
Mr. Clark	20	2					x			x
Mr. Curtis	12	3	2				x		x	
Grant H.S.										
Mr. Gage	25	3	retired	x				x		
Mr. Gregory	26	3	retired				x			x
Totals				5	2	1	4	7	3	2

*Reading Habits- Strong: history books and journals; Average: weekly newsmagazines and K-12 texts; Weak: occasional reference to texts or magazines.

Table 3

Abbreviations and Definitions of the Study Variables

Coding Categories: Time Use*

Instructional Formats

1) Lec	Lecture- A teacher oral presentation to students in which student questions may be allowed, but teacher questions to students are extremely limited. Any teacher questions are typically answered by the teacher.
2) Rec	Lecture/recitation- A teacher presentation including frequent questions to students. Questions are convergent in nature, necessitate only a brief answer (a word or a phrase), and since the teacher often expects the majority of students to be able to answer the questions, students may answer in chorus.
3) Respon	Lecture/response- A teacher-led segment in which questions to students may be either convergent or divergent, but necessitate a more lengthy response (a phrase or a sentence).
4) Disc	Lecture/discussion- A teacher-led discussion in which the segment is oriented around teacher questions which require a relatively long student response (long phrase or sentence). Questions are more open-ended and there may be evidence of student-student interaction.
5) *Disc	Discussion- The teacher orchestrates student discussion by asking open questions and expecting the students to carry the bulk of the discourse. The teacher is much less directive and prompts a great deal of student-student interaction.
6) Stwk	Seatwork- Students work on a reading, worksheet, or writing task in class, usually at their own pace. Occasionally students may complete seatwork tasks in small groups.
7) Testing	Testing- Any quiz or exam that is a formal assessment of student learning. The task is graded, usually by the teacher at a later time; however, in a few settings students grade each other's work.
8) AV	Audio-Visual- The primary instructional function is carried out by a technological device such as a VCR, film, or filmstrip projector. AV is still coded if the teacher makes a comment of less than one minute during the AV segment.

* Fieldnotes from observations were coded in one minute segments according to the following categories. These variables are typically expressed as a percent of total time.

Instructional Support

9) T-Info	Task Information- The teacher gives directions or instructions (oral or written) concerning a task (homework or in-class). Directions focus on the technical aspects of the assignment, such as the chapter to be read, questions to answer, due date, time frame, point value, or general grading procedure.
10) T-Elab	Task Elaboration- The teacher elaborates on a task assignment by linking it to content previously discussed, engaging students in brief guided practice related to the task, or clearly linking the task to broader goals.
11) Fdbk	Feedback to Students- Oral or written feedback to students concerning performance on in-class, homework, or testing tasks. Feedback may be given to the entire class, or to individual students on a consistent basis. Also included would be information which seeks to improve future performance, such as clarifying evaluative criteria for a task or motivational speeches in regard to student academic performance.

Non-Instructional Formats

12) Grading	Grading- Students and the teacher engage in the technical task of grading a task or a quiz. Includes grading each item, as well as computing and reporting the score.
13) Chores	Organizational Chores- Includes various organizational and administrative tasks such as taking attendance, changing the seating arrangement, or collecting/distributing materials. The attention of the teacher and students is totally directed toward completion of the chore.
14) Beh Mngt	Behavior Management- Time spent managing the behavior of the entire class or individual students. Also included are general lectures concerning behavior, as well as preventative motivational lectures concerning student behavior or attendance.
15) Social	Organized Social- Occurs when the teacher engages the entire class concerning non-academic matters. If the topic commented on by the teacher can be construed to be a current event, and therefore a social studies related issue, the appropriate instructional format is coded.
16) No Task	No Task- Occurs typically when the teacher is occupied and has failed to give the students a task. Frequently occurs at the beginning of class, but may occur at any time.
17) Free Time	Free Time- The teacher deliberately gives students free time to do as they wish. Usually occurs at the end of the period.
18) Interruptions	Interruptions- Class time devoted to typically administrative matters which are not under the control of the teacher. Often consists of public address announcements.

Variables Calculated from Time Coding, Class Characteristics, and Student Behavior

Total Time Use

Tot Instr — Total Instructional Time- Represents the sum of time spent in all instructional formats (variables 1-8) expressed as the percent of total time.

Tot I-Support — Total Instructional Support- Represents the sum of time spent in all instructional support formats (variables 9-11), expressed as the percent of total time.

Tot Non-Instr — Total Non-Instructional Time- Represents the sum of the time spent in non-instructional formats (variables 12-18), expressed as the percent of total time.

Student Oral Involvement

% Sts Part — Percent of Students who Participated Orally- The percent of students who participated at least once orally (comment or question) during a class period.

Student Off-Task Behavior

% Freq Off-Task — Percent of Students Frequently Off-Task- The percent of students observed to be off-task three or more times during a class period.

Combined Instructional Formats

Res:*Disc — Response:*Discussion- The Amount of time spent in the combined instructional format categories (3-5 above) of lecture/response, lecture/discussion, and *discussion. The three categories are combined due to the relatively low occurrence of each.

Table 4
Engagement in Instruction

School	Teacher	*	Allocated Time	Daily Announcements	Non-Instructional Time#	% Students Off-Task#	Homework Time
Adams	Anderson	H	40		8.34	13.19	extensive
Adams	Anderson	R	40		5.00	7.28	moderate
Adams	Armstrong	R	40		19.45^	5.29	moderate
Adams	Armstrong	B	40		19.99	40.40	moderate
Jefferson	Jewel	H	45		3.14	1.81	extensive
Jefferson	Jewel	B	45		6.51	3.06	extensive
Jefferson	Jones	H	50	x	7.55	1.89	moderate
Jefferson	Jones	R	45		14.82	7.41	moderate
Truman	Taney	R	45		13.55	0.43	moderate
Truman	Taney	R	45		10.88	4.71	moderate
Truman	Thomas	R	45		9.56	24.81	moderate
Truman	Thomas	B	45		12.00	25.66	0
Hoover	Hurley	H	45		8.64	0.90	extensive
Hoover	Hurley	R	45		17.29	7.46	moderate
Hoover	Hyde	R	45	x	16.05	1.31	minimal
Hoover	Hyde	R	45		10.13	3.66	minimal
Carter	Clark	R	50		13.00	12.21	optional
Carter	Clark	B	60		8.50	30.00	optional
Carter	Curtis	R	50		7.20	4.07	moderate
Carter	Curtis	R	60		7.33	5.46	moderate
Grant	Gage	H	47		6.39	44.71	moderate
Grant	Gage	B	47		8.04	43.14	minimal
Grant	Gregory	R	47		29.07	34.62	0
Grant	Gregory	B	53	x	31.24	39.29	0

*Honors, Regular, Basic

#Averaged over 9-10 class sessions

^Slightly inflated by an emergency drill

Table 5

Rating of Effectiveness in Managing Time and Student Engagement

More Effective Managers			Less Effective Managers			
School	**Teacher**	*	**Teacher**	*	**High Non-Instructional Time**	**High % of Students Off-Task**
Adams	Anderson	H				
Adams	Anderson	R				
Adams			Armstrong	R	x	
Adams			Armstrong	B	x	x
Jefferson	Jewel	H				
Jefferson	Jewel	B				
Jefferson	Jones	H				
Jefferson			Jones	R	x	
Truman	Taney	R				
Truman	Taney	R				
Truman			Thomas	R		x
Truman			Thomas	B		x
Hoover	Hurley	H				
Hoover			Hurley	R	x	
Hoover	Hyde	R				
Hoover	Hyde	R				
Carter	Clark	R				
Carter			Clark	B		x
Carter	Curtis	R				
Carter	Curtis	R				
Grant			Gage	H		x
Grant			Gage	B		x
Grant			Gregory	R	x	x
Grant			Gregory	B	x	x
		13 classes		11 classes		

*Honors=H, Regular=R, Basic=B

Table 6

Academic Work in US History Classes: Factors for Assessing Challenge

School	Teacher	Class Level	Written Work				Oral Involvement
			Vocabulary* Terms	Objective Worksheets	Answer* Questions	Writing/ Projects	Average % Time: Response:Discussion
Adams	Anderson	Honors				x	9.72
Adams	Anderson	Regular				x	6.66
Adams	Armstrong	Regular			text	x	2.23
Adams	Armstrong	Basic		x		x	5.56
Jefferson	Jewel	Honors				x	8.54
Jefferson	Jewel	Basic			text	x	7.42
Jefferson	Jones	Honors			teacher	x	9.59
Jefferson	Jones	Regular			teacher	x	7.64
Truman	Taney	Regular	teacher		teacher	x	2.67
Truman	Taney	Regular	teacher		teacher	x	2.22
Truman	Thomas	Regular	teacher	x		(In-Class)	0.22
Truman	Thomas	Basic		(In-Class)			0.22
Hoover	Hurley	Honors		x		x	1.24
Hoover	Hurley	Regular	text	x			0.74
Hoover	Hyde	Regular	text	x	text		0.00
Hoover	Hyde	Regular	text	x	text		1.48
Carter	Clark	Regular		x			2.60
Carter	Clark	Basic		x			3.67
Carter	Curtis	Regular	text	x			0.40
Carter	Curtis	Regular	text	x			1.00
Grant	Gage	Honors			teacher	x	0.71
Grant	Gage	Basic		x	teacher		1.65
Grant	Gregory	Regular		(In-Class)			0.00
Grant	Gregory	Basic		(In-Class)			0.84

*Teacher generated or text based.

Table 7

Academic Work in US History Classes: Factors for Assessing Accountability

Teacher	*	Homework Begun In Class	Grading: Teacher In Class	Grading: Student In Class	Teacher Type	Lack of Clarity/ Timeliness^	Feedback: # Instances	Feedback: Written On Tasks	Feedback: Oral To Class
Anderson	H				thorough		4	3	1
Anderson	R				thorough		4	2	2
Armstrong	R				thorough	x	2	1	1
Armstrong	B	x			thorough	x	8	4	4
Jewel	H				thorough		9	3	6
Jewel	B				thorough		18	5	13
Jones	H				thorough	x	4	3	1
Jones	R				thorough	x	2	1	1
Taney	R				combination		3	1	2
Taney	R				combination		2	-	2
Thomas	R		x		combination		3	1	2
Thomas	B	Replaces HW	x		combination		9	3	6
Hurley	H				thorough		2	-	2
Hurley	R		x	x	cursory		2	-	2
Hyde	R	x	x	x	cursory	x	2	-	2
Hyde	R	x	x	x	cursory	x	2	-	2
Clark	R	x			infrequent	x	4	2	2
Clark	B	x			infrequent	x	4	-	4
Curtis	R	x	x	x	cursory		6	2	4
Curtis	R	x	x	x	cursory		8	3	5
Gage	H			x	infrequent	x	4	1	3
Gage	B			x	infrequent	x	1	1	-
Gregory	R	Replaces HW	x	x	infrequent	x	2	2	-
Gregory	B	Replaces HW	x	x	infrequent	x	-	-	-

*Honors, Regular, Basic

^In regard to task due dates and feedback

Table 8

The Level of Academic Press* Observed in US History Classes: Classification of Teachers/Classes by Degree of Challenge and Accountability

High Challenge/Accountability	**High Challenge/Low Accountability**
Anderson- Honors Anderson-Regular Jewel- Honors Jewel- Basic Taney-Regular Taney-Regular	Jones- Honors Jones-Regular Armstrong-Regular Armstrong-Basic Gage- Honors Gage- Basic
Low Challenge/High Accountability	**Low Challenge/Accountability**
Thomas-Regular Hurley- Honors Hurley-Regular Curtis-Regular Curtis-Regular Hyde-Regular Hyde-Regular Thomas-Basic	Clark-Regular Clark-Basic Gregory-Regular Gregory- Basic

*High academic press above the diagonal; low press below.

Table 9

Characterization of Teachers/Classes by Effectiveness of Management, Academic Press, and Teaching Style

More Effective Managers

High Press

Teacher	*	Style#
Jewel	H	res-disc
Jewel	B	res-disc
Anderson	H	res-disc
Anderson	R	res-disc
Taney	R	res-disc
Taney	R	res-disc
Jones	H	lec

Low Press

Teacher	*	Style#
Curtis	R	rec
Curtis	R	rec
Hyde	R	rec
Hyde	R	rec
Clark	R	rec
Hurley	H	rec

Less Effective Managers

High Press

Teacher	*	Style#
Jones	R	lec
Armstrong	R	lec
Armstrong	B	lec
Gage	H	lec
Thomas	R	lec

Low Press

Teacher	*	Style#
Hurley	R	rec
Clark	B	rec
Gage	B	lec
Thomas	B	lec
Gregory	R	AV-stwk
Gregory	B	AV-stwk

* Honors, Regular, Basic

lec=lecture, rec=recitation, res-disc=response:discussion, AV-stwk=audio-visual-seatwork

Table 10

Goals Stated by Teachers Concerning US History Classes*

School/Teacher	1-Content	2-Cultural Literacy	3-Citizenship Education	4-Responsibility	5-Critical Soc. Stud. Skills	6-General Skills
Adams H.S.#						
Mr. Anderson	x	x	x		x	x
Mr. Armstrong	x	x	x		x	(Basic Sts)
Jefferson H.S.#						
Mr. Jewel	x			x	x	(Love Learning)
Mr. Jones					(Research Skills)	(How to learn)
Truman H.S.#						
Mr. Taney	x	x			x	x
Mr. Thomas	x				x	x
Hoover H.S.						
Mr. Hurley	x	x	x			
Mr. Hyde		x				
Carter H.S.						
Mr. Clark	x	x	x			
Mr. Curtis	x	x		x		
Grant H.S.						
Mr. Gage	x	x				
Mr. Gregory	x					
Totals	10	8	4	2	6	6

1-Content: Any goal mentioning the content of US History.
2-Cultural Literacy: Goals concerning cultural information; learning from history and our past mistakes.
3-Citizenship Education: Goals concerning educating students to uphold democratic responsibilities.
4-Responsibility: Developing responsibility or self-discipline in students.
5-Critical Social Studies Skills: Critical thinking skills such as understanding another point of view.
6-General Skills: Primarily reading and writing skills.

* All teachers stated generally that they had the same goals for all of their US classes, no matter what the ability level.
# Schools serving predominantly college-bound students.

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